THE MINERALS CONTENTS IN TOMATOES AFTER MINERAL FERTILIZATION

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ABSTRACT – The minerals contents in tomatoes after mineral fertilization
In this paper was analyzed the macroelements (Na, K, Ca, Mg) and microelements (Fe, M, Cu, Zn, Ni, Pb) accumulated in tomatoes cultivated in field, in Romanian west area, after NPK fertilization. The experience was done in a cambric cernosium soil, with low acidity reaction and the high natural fertility potential favorable vegetables cultivation. The study was performed on control soil samples (without fertilizers) and soil samples after differentiated NPK fertilization in variable dozes: $N_{30}P_{30}K_{30}$, $N_{45}P_{45}K_{45}$, $N_{60}P_{60}K_{60}$, $N_{120}P_{60}K_{60}$. A field experiment was using tomatoes samples in different precocity steady: early (Export II) and middle tardy (Ace Royal). Na and K were determinate by atomic emission spectroscopy; Ca, Mg and microelements by atomic absorption spectroscopy. The mineral fertilization doses and the precocity steady of tomatoes influence the content of minerals in tomatoes fruit.

Keywords: tomatoes, precocity steady, mineral fertilization, minerals contents

In aceasta lucrare s-a urmarit analiza continutului de macroelemente (Na, K, Ca, Mg) si microelemente (Fe, Mn, Cu, Zn, Ni, Pb) acumulate, in urma fertilizarii minerale, in tomate cultivate in conditii de camp, in zona de vest a Romaniei. Tipul de sol pe care s-a amplasat experienta este un cernoziom cambic, sol cu reactie usor acida, cu un bun potential de fertilitate favorabil culturii legumicole. Cercetarile s-au efectuat pe un sol nefertilizat. precum si in conditii de fertilizare diferentiala cu NPK in urmatoarele doze: $N_{30}P_{30}K_{30}$, $N_{45}P_{45}K_{45}$, $N_{60}P_{60}K_{60}$, $N_{120}P_{60}K_{60}$. In analize s-au folosit tomate in diferite stadii de precocitate: timpuriu (Export II) si semitarziu (Ace Royal). Na şi K s-au determinat prin spectroscopie atomica de emisie; Ca, Mg si microelementele prin spectroscopie de absorbtie atomica. Dozele de fertilizare si gradul de precocitate al soiurilor de tomate influenteaza continutul de minerale din fructe.

Cuvinte cheie: tomate, stadiu de coacere, fertilizare minerala, continut de minerale